DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018316 Address: 333 Burma Road **Date Inspected:** 22-Nov-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: Mr. Xu Tao **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Bike Path

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 007450

This QA inspector performed UT (after HSR) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK004A1-005-009
- 2. BK004A1-012-009

Magnetic Particle Testing (MT) – NWIT Document No's: 007447

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK004B7-001-001, 002, 013, 014, 025, 026, 031, 037, 038, 043, 044
- 2. BK4A-007-MEP-011, 012, 013, 034
- 3. BK4A-009-MEP-011, 012, 013, 034

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- 4. BK4A-001-MEP-016, 017, 018, 032
- 5. BK004A1-009-016, 017, 018, 019, 024, 025, 026, 027
- 6. BK004A1-009-014, 015, 028, 029

Magnetic Particle Testing (MT) – NWIT Document No's: 007452

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK4A-004-MEP-031
- 2. BK4A-008-MEP-034
- 3. BK4A-003-MEP-032
- 4. BK4A-010-MEP-032
- 5. BK4A-010-MEP-016, 017, 018
- 6. BK4A-004-MEP-019, 020, 021
- 7. BK4A-008-MEP-010, 011, 012
- 8. BK4A-003-MEP-016, 017, 018
- 9. BK004A4-009- 079, 084
- 10. BK004A3-009- 064, 073
- 11. BK004A4-007- 079, 084
- 12. BK004A3-007-064, 073

Bay 19

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) repair welding of welds joint SB026-110-037 located on OBG Suspender Bracket SB110W. ZPMC Welder is identified as 062786. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) -Repair, which is used as per Welding Repair Report (WRR) B-WWR-17502.

Flux Core Arc Welding (FCAW) repair welding of welds joint SB026-110-059 located on OBG Suspender Bracket SB110W. ZPMC Welder is identified as 062786. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) -Repair, which is used as per Welding Repair Report (WRR) B-WWR-17504.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint BK004A4-014-014 and 015 located on stringer to deck plate joint of OBG Bike path. ZPMC welder is identified as 062811. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-1G (1F) - Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2264.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint BK004A5-014-056 located on stringer to deck plate joint of OBG Bike path. ZPMC welder is identified as 062811. ZPMC Quality Control (QC) is identified as

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Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-1G (1F) - Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2264.

Visual Inspection after Blast

OBG Segment 12BE

This QA Inspector performed a preliminary random visual inspection on OBG Segment 12BE, after the grit blast of the exterior components of the deck plates, floor beams, bottom plates, side plates and corner assemblies of this segment panel point PP113 to P115. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

Visual Inspection after Blast

OBG Segment 12BW

This QA Inspector performed a preliminary random visual inspection on OBG Segment 12BW, after the grit blast of the exterior components of the deck plates, floor beams, bottom plates, side plates and corner assemblies of this segment panel point PP113 to P115. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

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Inspected By: Kumar, Vibin Quality Assurance Inspector **Reviewed By:** Patel, Hiranch QA Reviewer